TELEPHONE PENETRATION RATES		
	In Home	None in Home
Nationwide (all races)	93.4%	6.6%
Blacks (nationwide)	83.5%	16.5%
Hispanic Origin (nationwide)	84.1%	15.9%
Massachusetts	97.9%	2.1%
All Blacks (Massachusetts)	87.93%	12.07%
Blacks in MA with incomes under $10,000	73.08%	26.92%
Hispanics in MA with incomes under $10,000	74.69%	25.31%
Whites in MA with incomes under $10,000	90.17%	9.83%
MA Low-income Telephone Survey	**89%**	**11%**

Source: Quinn and Colton, The Impact on Low-Income People of the Increased Cost for Basic Telephone Service, National Consumer Law Center: 1992.

Since the income level of the Massachusetts survey respondents is known to be at or near poverty and the table above demonstrates that low-income Massachusetts residents have penetration rates significantly lower than the statewide penetration rate, it is obvious that universal access to telephone service is far from a reality for low-income households represented by NCLC's survey.

It is true that in the last five years for which the Census has reported telephone access, the overall average percentage of American households with telephones has held steady at about 93 to 94 percent, and was 94.2 % in July, 1993.[26] However, the

[26]**Telephone Information by Detailed Characteristics, Bureau of the Census, Table IV.**

statistics for low-income customers, African-Americans and other disadvantaged groups, have not improved appreciably during this time. In fact, some groups gained ground and have since lost it. This is particularly true in the case of the very-low-income households. And even for groups, such as Latinos, whose situation has improved markedly in the last five years, the rate of exclusion from the information back roads (POTS) remains unacceptably high.

CHANGE IN TELEPHONE ACCESS FOR SELECTED GROUPS
1988-1993

	'88	'89	'90	'91	'92	'93	'94	3/95
Total	92.7	93.1	93.3	93.4	93.8	94.2	93.8	95.2
Blacks	83.0	83.2	83.5	83.5	84.2	85.2	85.1	85.1
Latinos	82.1	83.0	82.7	84.1	85.8	86.7	86.9	85.7
< $5K	72.0	74.4	75.4	73.9	72.0	72.9	76.1	74.3
$5K-$7.5K	83.3	83.7	82.6	82.9	83.2	84.0	82.7	82.3

Source: Bureau of the Census, Telephone Information by Selected Characteristics, March 1988 to March 1995

Not all of the differences in subscribership associated with race and ethnicity can be written off to income-related factors. What the Census calls "tenure," or whether or not you own your own house, is an important variable. The attached chart "Telephone Availability for Renters: 1990," shows that renters of all incomes have significantly lower subscribership than the average American family (87% vs. over 93%). Renters who are below 100% of the FPL not surprisingly have lower subscribership than other

renters, but race, ethnicity and mobility are also important factors. Of a family who rents moved in the last year, 18% went without a telephone after the move.

Elder renters have subscribership closer to the national average, highlighting the results of the OPASTCO study (copies available on request) to the effect that young families are disproportionately likely to be without telephone service. When employment and education are so linked to communications, the lack of access by America's youth, particularly its rural and central city youth, is discouraging.

More study is required to better understand the phenomena of non-income factors. For example, personal experience and reading of newspaper reports reveals that at least in Boston and New York, Hispanic, Créole and Pakistani immigrants use a service called in Spanish a "Centro de Communication," or a storefront where a customer can make a long distance call. This type of "node" for making long distance calls is a typical institution in third-world nations for providing some form of access to long-distance where facilities are not built out, or the population is impoverished, or both. While some of the reason for using a "Centro de Llamadas" or "Centre de Télé-communications" may be related to the inability to maintain telephone service in the face of high toll bills, it may also be that cultural familiarity plays a role in the proliferation of these services. Again, more data is needed to understand the role these storefronts play in the communications network.

In the end, however, we know that help is needed to enable the millions of Americans without telephones to gain access to this vital service. The data above that presented by other panelists, and the evidence of our own eyes and ears, shows that the work of achieving Universal Service is not completed.

IV. The Elements of Universal Service

The Act provides that in developing its evolving list of included services, the Joint Board in recommending, and the Commission in rulemaking,

> "shall consider the extent to which such telecommunications services--
>
> (A) are essential to education, public health, or public safety;
>
> (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;
>
> (C) are being deployed in public telecommunications networks by telecommunications carriers; and
>
> (D) are consistent with the public interest, convenience, and necessity.[27]

Thus, the Act contemplates a four-part general test to determine what service elements are so fundamental to modern life that all Americans should be able to have affordable access to those services. The Act provides that the Joint Board may, from time to time, suggest updates to the particular list of service elements prescribed under

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[27] Id., adding 47 U.S.C. § 254(c)(1).

these standards.[28] The FCC has asked for comment on the frequency of these updates, and we recommend that the inquiry over updates be done periodically. If a preliminary investigation reveals that not much has changed in the area of deployment, subscribership, cost, or the integration of the service into the fabric of American life, further inquiry can be postponed. Also, consumers should have the ability to petition the Commission to initiate an inquiry, when new developments suggest that an element has moved into the essential and public interest columns between regular update reviews.

The Act is not completely silent on what constitutes specific Universal Service elements. For example, the Act specifically mentions "interexchange services,"[29] and "advanced telecommunications and information services."[30] Universal Service elements have been the subject of considerable debate in the trade literature.[31] Access to local exchange service is everywhere agreed to be a component of universal service.[32] Most of the debate over universal service elements revolve over the extent to which

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[28] Id., adding 47 U.S.C. § 254(c)(2).

[29] Id.. adding 47 U.S.C. § 254(b)(3).

[30] Id., adding 47 U.S.C. § 254(b)(2), § 254(b)(3), § 254(h).

[31] See, e.g., John D. Borrows, Phyllis A. Bernt and Raymond W. Lawton, Universal Service In the United States: Dimensions of the Debate, June 1994, National Regulatory Research Institute: Columbus, Ohio.

[32] See, e.g., 55 Fed. Reg. 800, at 816, ¶134 (National Telecommunications and Information Administration *Comprehensive Study of the Domestic Telecommunications Infrastructure*)(1990).

competitive services and advanced telecommunications should be included in the definition.[33] Low income customers have a keen interest in the definition of Universal Service elements, because support for the availability and affordability of these service elements depends on their inclusion in the definition.

We recommend that the following items be considered the elements of Universal Service at this time:

1. Single-party voice grade dial tone.
2. Interoffice digital facilities.
3. Touch tone.
4. Equal access to interexchange carriers.
5. Unlimited local calling to communities of local interest.
6. A basic package of toll call usage, at least within the jurisdictional service area.
7. Call trace and 900-type service blocking, emergency 911.
8. Ancillary services such as operator service, directory assistance, directory distribution, ordering, installation, restoration and disconnection of service, and the like.
9. Voice mail for transient and homeless Americans.

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[33]**See, e.g., National Telecommunications Information Administration, Telecommunications in the Age of Information ("The NTIA Infrastructure Report"), U.S. Department of Commerce, October 1991, at 302-303.**

If a service is (a) important in modern living, (b) widely available and used today, (c) relatively inexpensive to extend to currently-unserved households, (d) not readily acquired in the competitive marketplace, it should be recognized as an element of universal service. If any one of these factors is missing, a service may still deserve recognition as an element of universal service. Thus, for example, the more important a service, the less the incremental cost of extending the service to currently-unserved households weighs in the balance. There is a link between these factors; it is likely that a service that is widely available has lower incremental costs than a service that is in its infancy, although this is not always the case.

We do not include some elements that may indeed be crucial to participation in modern life, but suggest that they may be candidates for inclusion in the future. For example, CPE including computer and modem capacity, in addition to the phone set itself, are not included at this time as things that each household requires. As to computers, the NTIA study and the Current Population Reports "Beyond Poverty" studies show that less than a majority of all homes have computers[34]. While only about 7% of low-income families have computers, and this denies this segment of the population access to the information superhighway, the more important problem is the lack of

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[34] **NTIA: only population of households over $75K income had computer penetration over 50%. For groups below $35K annual income, penetration was less than 30% (these income figures are not adjusted for family size). CPS, using FPG with their family-size adjustment, found that only 28.3% of all non-poor households had a computer in 1992, and an even smaller number (7.4%) of those with incomes under 100% of the FPG had a computer (4.2% for familes on AFDC).**

basic telephone service. First things first. We must solve the problem of lack of exchange and interexchange voice grade service before we matriculate to the high-tech world of advanced telecommunications. Since about 70% of the non-poor population is also making do without computers, such technology has not yet achieved the ubiquity contemplated by the Act.

That is not to say that we should ignore the gap between the information haves and the information have-nots. On the contrary, the Act looks to schools and libraries as key vehicles for allowing residents of rural areas and residents without advanced telecommunications in the home to have a foothold in the modern world. More is required however. The funding of telecomputing centers, such as those agreed to by Ameritech in its Alternative Regulation settlement, and those operated by groups like Playing to Win, is needed. The equipment and a location are not enough. There needs to be mentoring for skills development. Youth especially needs the opportunity to learn by doing, with supervision and trouble-shooting guidance. These neighborhood centers can include job banks and other services, that give a real life demonstration of the benefits of learning this sometimes forbidding new technology.

As to solving the immediate problem of subscribership, CPE is an important issue, but not one that requires immediate inclusion in the Universal Service Elements list. It is true that people cannot make telephone calls without customer-premises equipment. Also, the FTC has recently announced that many subscribers, over a decade

after divestiture and the deregulation of CPE, are still renting their telephones, and thus cross-subsidizing other customers who have been able to buy their own units. Steve Fetter's mother-in-law is not alone in renting a phone despite the availability of expert advice on the merits of phone ownership (and presumably quite adequate funds to purchase a phone).

But CPE is not on the list of the essential components of universal service because it is well-settled that CPE is to be provided and priced via the forces of competition. Absent this common understanding, one would include customer premises equipment capable of supporting these functions. The LEC should, however, be the provider of last resort. And in the future, as the information superhighway requires upgrades of the vehicles for taking to the road[35], provision must be made to ensure that all Americans can obtain the necessary equipment.

With respect to other elements of Universal Service, NTIA defined the elements of universal services today as including: (a) a "basic telephone package" of one-party, voice-grade service with rotary dialing, the ability to receive and place calls, and access to and direct dialing of local and toll calls, (b) touchtone, (c) access to emergency services such as 911, (d) equal access to IXCs, and (f) opportunities for the hearing-

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[35]**Imagine, for example, a Model T fighting traffic on an interstate highway today.**

impaired.[36] NTIA also urges that items that can be provided at or close to zero incremental cost be included as part of the defined elements of universal service's basic package. Touchtone is thus included in NTIA's list, because it can be provided with very little additional cost to the system. NTIA warns against fixing the definition of universal service at the services possible with today's technology and cost structure.[37] However, and importantly, NTIA does not include unlimited local calling, nor long-distance calling, as elements of universal service. We turn now to items that do not appear on the NTIA list:

1. **Unlimited usage to a local calling area.**

Unlimited usage to a local calling area should be considered part of universal service. Some say that a service offering including local measured service with a low-priced initial package of calls to a local calling area satisfies the obligation to provide universal service.[38] Local measured service is not adequate to provide minimal interconnection needs. The vast majority of the homes with dial tone are able to make essentially unlimited local calls, and count on their right and ability to do so in their everyday lives. Note that, even where a customer has optional local measured service,

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[36]NTIA notes that multi-party phone service is extremely rare today, and recommends that an initial priority "must be to provide the opportunity to receive a basic level of service [i.e one-party service] for users in these areas." *Id.* at 304.

[37]*Id.*, pp. 305-306.

[38]At least with respect to local calling other than emergency services and opportunities for the hearing-impaired, this appears to be the implication of the NTIA definition of universal service today. *Telecommunications in the Age of Information*, p. 304.

or in those few jurisdictions where there is **mandatory** local measured service, the vast majority of households are able to make whatever number of calls they need or want to make. Unlimited local area calls are not considered luxuries or frills by the American people. They are considered to be part and parcel of what we take for granted today.

It is inconceivable today for a modern household to function without a the ability to receive calls, and to make calls at will in its community of interest. Part III of these memos discusses the extensive reliance modern society places on integration into the network: the ability to be contacted by telephone, and the ability to use the telephone to make contacts.

While some point to optional local measured service as being the standard for minimum necessary interconnection and telecommunications,[39] on closer look, these "degraded" forms of local access do not meet the criteria of telecommunications services to fulfill critical social, cultural and economic needs. As evidence that society rejects such degraded offerings for everyday existence in the latter half of the century, we can look to the experience of the Maine Public Utilities Commission in the late 1980's, which introduced mandatory local measured service (in part to take pressure off the increasing costs of the local loop after divestiture). Every household served by New

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[39] **"[In] analyzing universal service performance, it is probably more important to focus, not on the average costs of providing unlimited local service, but on what it costs consumers to have some basic or budget type of service." NTIA report, at 299.**

England Telephone had no choice but to receive their local service on a measured basis.[40] Almost immediately upon the Commission's issuing the order instituting mandatory LMS, the legislature passed a bill overturning the decision.[41] Indeed, the trend in the last decade has been to extend the "fixed monthly charge" concept ever further, to Extended Area Service,[42] and, in one LATA in Massachusetts, to LATA-wide EAS.[43]

The public expects to be able to call a wider and wider local calling area without having to consider the incremental costs and benefits of each such telephone transaction. To those who chose a measured service option, the public is indifferent. But try to require the general public to take its local service on a measured basis, and you go against the received understanding of the meaning of local telephone service today.

With regard to the question of local measured service versus local unmeasured, flat-rate service, we have seen that for a local community of interest, the ability to make a call when needed, for as long as needed, has become a cherished, and undeniable, foundation of the voice telecommunications network. Of course, if a person

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[40]Re New England Tel & Tel, Docket No. 83-179 (Me. P.U.C. 1984).

[41]35-A Maine Stat. § 7303.

[42]A search of recent cases via Westlaw turned up a list of over 200 cases.

[43]Re New England Tel & Tel, Docket No. 93-125 (Mass. D.P.U. 1994).

has sufficient disposable income, even a sharply graduated message unit rate for local service would be no deterrent to enjoyment of the contemporary expectation of unlimited local calling.[44] Thus there is a relationship between the rate structure, universal service, and affordability questions. Later we address the relationship between the concept of universal service and the concept of affordability.

2. **Basic Package of "Long Distance" Calls.**

A basic package of long-distance calls (including usage) should be included in the definition of universal service. In the contemporary world, the boundary of everyday interaction does not stop at the artificially defined "local exchange" boundary. The Telecommunications Act of 1996 expresses Congressional understanding and intent that we should restore a point-to-point integrated system of telephony, much as we had before the break-up of AT&T, with the major difference only that not one single monopoly company will be providing this integrated service. Congress recognized the limits on the usefulness of the geographic and jurisdictional boundaries that have separated local from toll, and the definition of Universal Service should do the same.

In addition, from the point of view of the place of telephony in modern life, long distance cannot be dismissed as a "luxury" any more. No household in America has only a single, easily bounded "community of interest" We are a society that has

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[44]**For example, the average local phone bill in the United States is about $18/month (NTIA report, pp. 299-300, note 1007). This represents six-tenths of a percent of the income of a family with a combined income of $35,000, but 3 percent (5 times as great a burden) of the income of a family with only $600 per month in Social Security to live on.**

developed in part by transcending the limits of economic physical transportation by making connections through telecommunications. Thus, the boundaries of local exchanges, extended service areas, "metropolitan" service areas, LATAs, and even states and nations, have become more important as boundaries for pricing purposes than as boundaries that identify a subscriber's community of interest.

The legitimate expectations of contact do diminish with distance. It is quite true that the immediate geographical surroundings still tend to be the locus of the most intense and frequent interaction for telecommunications users. However, a number of factors combine to render the immediate physical surroundings an inadequate measure of the basic, everyday reach of modern telecommunications.

First, Americans are a mobile people. It is quite common for families to live separated by hundreds of miles, and yet we take for granted that we will be able to maintain contact via telecommunications. Second, low-income families are disproportionately more likely to be mobile than non-low-income families (typically by a factor of 2),[45] making interconnection beyond the strictly local area the more important for this group. Third, as described In Part III, many of the basic services, economic opportunities, and organizations with whom a low-income family must needs interact are located in centralized areas, remote from a large portion of the low-income population that must be in contact with them. This is true, of course, for those not

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[45]U.S. Department of Commerce, U.S. Bureau of the Census, *Geographic Mobility: March 1987 to March 1990 (Series P-20, No. 456)*, December 3, 1991, 33.

limited to low income, but the need for interaction has a stronger impact on basic subsistence contacts in the case of low-income households.

Historically "long-distance" services have not been explicitly considered part of basic telephone service. That is, definitions of "basic" telephone service or POTS have been limited to "dial tone", "dial tone and local usage" or similarly non-long-distance recitations.[46] However, in practice, ensuring widespread access to and ability to make use of long-distance services have been a fundamental purpose of telecommunications policy. While it is true that regulators have focussed their attention on defining the fundamental package of local services, this has actually come about in response to the success of regulation and industry efforts to ensure the ubiquitous availability and increase use of the long-distance network. In fact regulatory policy has evolved with a view towards ensuring that telecommunications services are broadly available over long distances, from interexchange to international.

Data on historical price trends for local and long distance telephone in the United States, compiled by Richard Gabel for the American Association of Retired Persons,[47] show that local service costs have steadily climbed in this century, while interstate long distance costs have steadily dropped. Mr. Gabel persuasively discusses the investments in infrastructure needed to support longer distance telecommunications,

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[46]E.g. NTIA, *Telecommunications in the Age of Information*, p. 304.

[47]Gabel, *op. cit.*, note 6, *supra*, Tables II-2, II-4, and III-5.

and the changes in cost allocation and pricing, that have been made to ensure the rapid expansion of a unified national network capable of supporting long-distance service as a commonplace, bedrock service. As the NTIA noted,

> Perceived by many as a rarely-indulged luxury service in the past, long distance calling is now increasingly commonplace among ordinary customers. For example, the FCC estimates that interstate long-distance calling by residential and business customers has increased, on average, more than 12 percent per year since mid-1984, which would amount to a doubling in the volume of such calls during this period.

Telecommunications in the Age of Information, pp. 298-299 (footnote omitted).

The point is that the regulatory policy to favor the expansion of long-distance services reflects an understanding that such services are part of our core concept of telecommunications. They are no longer a luxury. It is true that definitions of a basic package of telecommunications services tend to leave long-distance aside. But we can no longer ignore the elemental role that long-distance (interexchange, inter-LATA, interstate, and in the future, perhaps, international) telecommunication plays in our social fabric. Families **expect** to be able to maintain contact as we are separated by huge distances, or move from place to place in our mobile society. We **expect** to be able to interact with businesses and services that are situated far from our local or bedroom community. And with the spread of living situations in which there ar fewer "town" or "city" centers, this phenomenon will become more deeply entrenched. No average household in America today would consider a toll-blocked telephone adequate.

This brings us to the question of what level of long-distance service should be provided in the basic package of universal services. As with other elements of universal service, all customers should be able to take advantage of the average level of use for that service. This average level can be called the "base" level. Thus, policy-makers should be determine the average toll use within its territory, and that level of use is the benchmark for whether universal service has been achieved. This need not be expensive. GTE's witness testified in the Pennsylvania Universal Service docket that about 74% of the residential customers in their territory spend $5 or less on toll service (although the Bell average toll bill was about $25, confirming the GTE experience that at the high end, 7% of residential customers together with 3.5% of business customers generate about 50% of the toll usage.)

3. **Voice Mail for Homeless Customers**

A great miracle of new switching and storage technology is the low cost of voice mail. On an incremental cost basis, its cost is negligible. For customers who have no permanent dwelling, it is the partial equivalent of subscribership to a telephone. That is, it substitutes, if only in part, for the connectivity that is practically ubiquitous in this nation. So it meets the statutory requirement of being a service that most Americans enjoy. The techonology that permits such voice mail services is already widely deployed, meeting yet another of the statutory tests. The health and safety of people living on the streets or in shelters is in jeopardy from their inability to access the flow

of commerce and society. Voice mail where it has been done on a pilot basis has provided a crucial link to the rest of society. And public convenience and necessity require that this large group of Americans be helped back into the mainstream. Such a service, available free to the homeless, would pay for itself many times over, in the lives restored to a functional base by the ability to access jobs, health care, social services, and friends and family who otherwise lose touch with a loved one.

4. Other elements

We include call trace and the two blocking options in our definition of universal service for two reasons. First, all of these services are possible with current technology at small incremental costs, or will become so very soon, when the LECs plan to complete the installation of Common Channel Signalling (CCS).

With respect to the blocking options, 900-number blocking is, or should be, available today, pursuant to federal law and regulations.[48] Our definition merely seeks to memorialize this reality. Call Trace is a basic, common sense approach to the problem of crank and harassing telephone calls. If Call Trace is physically possible, it makes no sense not to ensure that it is universally available.

There are a number of services that are available with today's technology and are useful to customers, and could be made available at a very modest incremental cost.

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[48]**FCC 93-349, In the Matter of Policies and Rules Implementing the Telephone Disclosure and Dispute Resolution Act, CC Docket No. 93-22, RM-7990, Released: August 13, 1993, Adopted: July 15, 1993.**

We do not include them at this time. These other "enhanced" or non-basic services could have been included, based merely on their cost characteristics. However, for non-essential services that are not broadly adopted by society, it still makes sense to price these services in such a way as to capture a contribution that can be applied to reduce the pressure on local exchange charges. Some services, such as call-waiting, are a nice convenience (or annoyance, depending on one's point of view) for most, and are necessary services in only a few situations. Penetration data on enhanced services from one major LEC (proprietary) shows that they do not dominate the market yet.

V. Credit and Disconnection Policies and Their Impact on Subscribership

The Commission rightly notes that deposit requirements are a barrier to subscribership. The use of toll limiters on a voluntary basis as a quid pro quo for the elimination of the deposit should be tried out in several pilots, and the results studied. This approach has merit, but it also has risks. The risks are not as great as in the electric or gas area, where the disconnections triggered privately by prepayment meters have more immediate and dangerous effects. However, the Commission must satisfy itself that the benefits of avoiding high deposits outweigh the destruction of the advance notice rules and opportunities for negotiation to avoid disconnection. Prepayment meters do not give 14 days' advance notice and a right to a PUC hearing. Because of these risks, and the issue of local jurisdiction to insist on advance notice and other procedural rights, it would be best to develop these pilots together with state

commissions that are interested in experimenting with new ways of increasing subscribership, and willing to do so using sound social science research techniques.

With respect to the issue of disconnection of access for non-payment of anything but access, we do support the FCC's suggestion that preemption may be in order. Here, the states have had since the late 1980's to bring their policies up to the new competitive reality, and only 11 have done so. Even in some states where local may not be terminated for non-payment of toll (e.g. New York), it is not yet clear that the structure of partial payment accounting is in place to give meaning to the policy.

The FCC should adopt a program much like that of Saco River Telephone Company, described in comments from the Maine Public Utilities Commission, where a hierarchy of services is established, payments are booked according to that hierarchy absent explicit instructions to the contrary (evincing a different set of priorities on the part of that customer), and disconnection proceeds only stepwise, if payment arrangements are successively broken with respect to each layer of service.

In connection with this, the FCC should explore the technological feasibility of establishing selective toll blocking that would permit a household a list of, say, 10 essential numbers, falling into two or three defined blocks. These might include such categories as next of kin, emergency contact such as neighbor, employer(s), school(s), attending doctor(s), and other essential contacts. Provision could be made to determine if frequently-called numbers for which extremely high bills had been incurred would

have to be on the list because of their importance, but should be limited in time for each call, or in some other way.

This may sound like both heavy-handed intrusion into details of a family's life, and as overly complicated and expensive. But the point here is that technology is rapidly advancing, and permits greater and greater sophistication in the delivery or blocking of telecommunications messages. Why not harness this sophistication to enable a household in payment difficulties to participate in a reasonable semblance of modern life, but limit the high risk activities? It is at least worth exploring with the technological developers to examine feasibility.

The TDDRA should be better enforced, as well. I represented countless elders in my legal services practice whose relatives (for some reason usually a niece or nephew) would run up enormous 900 number or long-distance bills, even going to great lengths to evade blocks that the hapless senior put on the service.

With respect to the role of blocking, there are several problems here, and each needs a solution. First, the blocks need to be accurately represented to the customer, and in the absence of truthful disclaimer that even all three commonly available blocks will not stop a clever child, bills incurred despite the blocks should not be the grounds for disconnection.[49]Second, third-party billing should not be permitted absent operator

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[49]I had a client who, in desperation, locked the telephone in a separate room, but her daughter was able to plug into the network interface to call her long-distance boyfriend. Perhaps the mother should be required to pay the bill, but disconnection should not be an enforcement tool in such cases.

confirmation that the third party will accept charges. I have seen numerous clients at risk of loss of service because unbeknownst to them, a family member or visitor ran up huge calls on fraudulent third-party billing, which was only charged back to the subscriber many weeks or months after the calls were made. Again, disconnection should not be the remedy for inability to pay these bills.

Third, such blocks should be free to payment troubled customers, or at least to any customer on Lifeline. The blocks should not be mandatory, or involuntary (as in the case of toll denial to a customer who has fallen into default - see discussion above). But they should be widely advertised among the customers who are at risk. It is said that the storefront long-distance shops are considered a form of voluntary toll limit by those who frequent them. As we say above, technology ought to be able to provide this aspect of the "Centro de Llamadas" experience in the comfort of a customer's home.

VI. Targetted Support for Low-Income Customers.

The primary way to get bills for low-income customers to an affordable level is to prevent the kind of extreme market segmentation and resulting rate discrimination contemplated by some as we open up cross-technology and cross-jurisdictional competition.

Even if we hold the line against rate deaveraging, there will be some customers, particularly at the lower end of the low-income segment, who cannot afford telephone service. If the average total bill in Bell Atlantic-Pennsylvania's service area is $52, this represents over a quarter of the income of an AFDC mother. Imagine paying over a quarter of your income for telephone service. For a household with $48,000 in annual income, that would be the equivalent of a $1000 phone bill each month. If ordinary phone calls took that big a bite out of the average person's income, we all would struggle to pay our telephone charges.

So targetted support for the very low-income is necessary as a supplement to sound pricing policy and sound credit and disconnection policies. As stated above, this support should cover not only basic service, but a reasonable package of toll calls.

Ideally, one would determine an affordable percentage of income to pay for telephone service, and reduce the bill to the point where it is within that range. The exercise of determining what level is affordable has not been done that I know of, and perhaps that is the next piece of research that is required.

Today, targetted support is of the form of a fixed credit on the bill, up to $7 per month. We should flip the support program around, and fix the upper limit of the bill that the customer pays. In this way, the customer has a predictable and affordable bill, particularly useful given the fixed nature of the incomes of so many low-income customers. The upper limit could be set at what we know is a stretch for families, particularly as we are not yet sure what the exact limit should be, and to respect the twin principles of the participating customer having obligations and preventing the cost from burdening the remaining customers excessively.

The upper limit could be set, then, at the prevailing rate for flat rate unlimited local service (including the SLC), less the current Lifeline credits, plus $10 (double the toll bill of 70% of the customers of one major LEC), or something along those lines. To the extent the bill exceeded this level, the customer's obligation would be to pay 50%. This provision would mean the upper limit was not fixed, but it would also give the customer an incentive to control calling beyond the limit implied in the bill cap.

Equally as important as the amount of the targetted support is the way in which the support is provided to customers. The NYNEX-New York method of a "negative check-off" for enrolling customers in their Lifeline is the only sensible way to sign up the majority of low-income customers. Under this plan, NYNEX matches computer tapes with agencies that deliver means-tested public benefits, such as AFDC and Supplemental Security Income (SSI). Many utilities now do tape matching to identify

customers whose incomes have already been certified as below the targetted support cut-off. These utilities then typically send out a letter inviting the customer to ask to be put on the discounted rate. The "take-rate" from such advisories is better than from bill-stuffers (anything is better than a bill-stuffer), but pales in comparison to the NYNEX negative check-off plan.

Under the negative check-off, the letter to the matched customer advises the customer that he or she will be placed on the rate automatically, unless the customer says they do not want to be on the rate (NYNEX says about 4 % of those getting a letter decline the service). NYNEX expects to sign up about 85% of the Lifeline-eligible customers in this fashion. It is quick, it is inexpensive, it is accurate,[50] and it respects customer choice. The FCC ought to mandate the adoption of this method of signing up Lifeline customers.

VII. Conclusion

The FCC is to be commended for its efforts to make Universal Service a reality. The Joint Board will play a crucial role in helping develop specific policies to extend the basic level of telephone service to all Americans. The Telecommunications Act of 1996 makes it clear that the national mandate is there, and the tools exist, to bring telephony into the homes of all Americans, as we stand on the verge of a new information age.

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[50] **The lists are compared periodically, and there is a provision for removing customers who do not show up as matched.**